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ABSTRACT

In 1973, kindergarten children in a rural village in Texas were tested with the McCarthy Scales of Children's Abilities. For the next 2.5 years, children from successive grades in the same school were given the same test. During the entire period over 200 children had been tested, but of the original 53 pupils only 20 took the test all three times and 31 who took the test in early 1975 were present to retake it in 1976. The consistent correlations over the years for the General Cognitive Index--approximately .85 to .90--suggest that the McCarthy scales is a highly stable test. Also the consistency of the scores is highlighted by the low correlations for those scales on which the greatest gains were made as the number of children decreased. (Author/MV)

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Suggestive Data Concerning the Stability of the McCarthy Scales

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TM006 480

Running Head: McCarthy Scales Stability

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Abstract

Beginning in late 1973 kindergarten children in a rural village in West Texas were tested, and yearly thereafter children from successive grades in the same school were tested with the McCarthy Scales of Children's Abilities. Over the period of about two and a half years over 200 children had been tested, but of the original 53 pupils only 20 took the test all three times and 31 who took the test in early 1975 were present to retake it in 1976. The consistent correlations over the years for the General Cognitive Index--approximately .85 to .90--suggest that the McCarthy scales is a highly stable test. Also the consistency of the scores is highlighted by the low correlations for those scales on which the greatest gains were made as the number of children decreased.

The McCarthy Scales of Children's Abilities was published in 1972 and reports on the stability of the scales to date have been scanty. The manual (1972, p. 34) cites three groups of 40, 40, and 45 children who were retested at intervals of three to five weeks. In each instance, the General Cognitive Index had a correlation of approximately .90 and one of the Motor scales had the lowest correlation reported, a .69. Davis and Slettedahl (1976) reported correlations after an interval of one year for 43 children.

The present study expands the Davis and Slettedahl investigation, but the results can be only suggestive with an attrition from 53 children to 43, to 31, to 20, from kindergarten through first grade to second grade. Yet it is considered worthwhile to present these data because they are pertinent to the question of whether or not the McCarthy scales are stable, even though the samples are small, not random, and probably are not representative.

Method

Fortunately the principal, teachers and pupils who participated in this testing were gracious and patient. The school is located in a small West Texas village which nestles in the fertile valley of the Rio Grande. On both the Mexican and United States sides of the river the agricultural economy is essentially identical--small farms of cotton, alfalfa, and cattle feeding. The school is located about five miles from the international boundary across which there has been a constant exchange of persons and commodities for centuries. Although language roots and intonations are distinct, the overall culture is a hybrid--with unique aspects of its own. For the purpose of this report the children who took part in the testing will be classified as Hispanic or non-Hispanic to represent to some extent the difference between those who use most easily either the local English idiom or the local Spanish idiom.

Beginning in late 1973, 53 children were given the McCarthy scales as part of another study (Davis, 1975), and 43 of these children were retested approximately one year later as reported in Davis and Slettedahl (1976). Another year later--early 1976--the test was administered again. Twenty children were given the test all three times. Of these twenty 11 were Hispanic, 9 non-Hispanic; 12 were female and 8 male. The range of ages at last testing was from 7-4 to 8-4 with a mean of 7-10 and a median of 7-9. Of the children who took the test in early 1975, 31 were present in 1976--17 Hispanic, 14 non-Hispanic; 17 female and 14 male with an age range at last testing from 7-3 to 8-6 with a mean of 8-3 and a median of 7-10.

Table 1

Means, Standard Deviations, and Correlations

Means

	73(43)	73(20)	74(43)	74(31)	74(20)	75(31)	75(20)*
Verbal	38.1	42.6	41.5	43.6	43.1	47.9	48.7
Perceptual-Performance	51.7	51.7	56.3	55.9	55.6	54.4	55.4
Quantitative	43.5	46.3	43.5	44.6	44.4	45.9	46.9
GCI	88.7	91.1	92.7	95.6	94.2	97.8	99.4
Memory	41.1	43.7	43.3	46.4	45.2	50.0	51.2
Motor	46.1	45.2	48.3	48.3	47.7	44.4	44.7

Standard Deviations

Verbal	11.6	10.9	9.8	11.0	8.4	9.9	10.1
Perceptual-Performance	10.1	10.1	9.5	11.2	9.0	8.4	6.0
Quantitative	11.5	8.6	10.7	11.7	10.1	8.8	7.0
GCI	18.9	17.5	15.9	17.3	12.7	13.8	12.5
Memory	12.2	12.2	10.8	10.4	7.3	9.8	8.6
Motor	8.7	8.9	9.2	9.4	8.0	8.9	9.4

Correlations

	73-74(43)	73-74(20)	73-75(20)	74-75(31)	74-75(20)
Verbal	.73	.1[illegible]	.76	.73	.68
Perceptual-Performance	.62	.89	.84	.71	.77
Quantitative	.75	.76	.77	.54	.32
GCI	.85	.92	.85	.86	.83
Memory	.73	.84	.40	.60	.39
Motor	.33	.77	.65	.57	.65

* n in parentheses

The most obvious observation to make concerning Table 1 is the consistency of the five correlations for the General Cognitive Index over the period of two years and over groups ranging in size from 20 to 43. The incidence of the few low correlations seems to be at random with no distinguishable pattern. It is hoped that as more extensive studies are completed the evidence for the stability of the McCarthy scales will become increasingly firm.

References

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Footnote

Thanks are extended to Esther Correa and Alicia De Jong for preparing these data for the computer.

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